

Missouri Department of Natural Resources



PUBLIC NOTICE

DRAFT MISSOURI STATE OPERATING PERMIT

DATE: July 16, 2004

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: Peter Goode, Professional Engineer. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curd v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by August 16, 2004 or received in our office by 5:00 p.m. on August 19, 2004. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, <http://www.dnr.state.mo.us/wpscd/wpcp/homewpcp.htm>, or at the Department of Natural Resources, Water Protection Program, 205 Jefferson Street, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: July 16, 2004
Permit Number: MO-0130427
Southwest Regional Office

FACILITY NAME AND ADDRESS	NAME AND ADDRESS OF OWNER
Laclede Co. PWSD #3 23006 Paradise Drive Lebanon, MO 65536	Laclede Co. PWSD #3 23006 Paradise Drive Lebanon, MO 65536
RECEIVING STREAM & LEGAL DESCRIPTION	TYPE OF DISCHARGE
Unnamed Tributary to North Cobb Creek, Sec. 18, T34N, R15W, Laclede County	Domestic, new

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0130427

Owner: Laclede Co. PWSD #3
Address: 23006 Paradise Drive, Lebanon, MO 65536

Continuing Authority: Same as above
Address: Same as above

Facility Name: Laclede Co. PWSD #3
Address: 23006 Paradise Drive, Lebanon, MO 65536

Legal Description: SE ¼, NW ¼, SE ¼, Sec. 18, T34N, R15W, Laclede County
Latitude/Longitude: +3739385/-09237195

Receiving Stream: Unnamed Tributary of North Cobb Creek (U) (Losing)
First Classified Stream and ID: North Cobb Creek (P)(01473)
USGS Basin & Sub-watershed No.: (10290201-040002)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 - POTW - SIC #4952
Septic Tank/recirculating sand filter/sludge is land applied.
Design population equivalent is 1500.
Design flow is 150,000 gallons per day.
Design sludge production is 9.5 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Expiration Date
MO 780-0041 (10-93)

Jim Hull, Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 4	
					PERMIT NUMBER MO-0130427	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/week	24 hr. estimate
Biochemical Oxygen Demand ^{**}	mg/L		15	10	once/month	24 hr comp
Total Suspended Solids ^{**}	mg/L		20	15	once/month	24 hr comp
pH - Units	SU	***		***	once/month	grab
Fecal Coliform	#/100ml	1,000		400	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Temperature	°F	*		*	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II, & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** This facility is required to meet a removal efficiency of 85% or more.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.

C. SPECIAL CONDITIONS (continued)

- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.
 6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS (continued)

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

Date of Fact Sheet:

Date of Public Notice: July 16, 2004

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0130427

FACILITY NAME: Laclede County PWSD #3

OWNER NAME: Laclede County PWSD #3

LOCATION: Sec. 18 T 34N R15W County: Laclede

RECEIVING STREAM: Unnamed Tributary of North Cobb Creek

FACILITY CONTACT PERSON: Austin Fonda

TELEPHONE: (417) 532-3164

FACILITY DESCRIPTION AND RATIONALE

The Laclede County Public Water Supply District #3 has applied for a permit to construct a wastewater treatment facility consisting of a recirculating sand filter with ultraviolet disinfection. The facility will serve the Hickory Hills Subdivision area, and be capable of treating the wastewater from a population equivalent of 1,500 with a design flow of 150,000 gallons per day.

A Water Quality Review Sheet (WQRS) was not required since the design flow was less than 300,000 gallons per day. However, initial information indicated a design flow of 540,000 gallons per day, and a WQRS was prepared. Since it was not required, and was based on an incorrect design flow, it was not used in writing this permit. A copy is attached for informational purposes.

The effluent limitations were established according to the Effluent Regulations for Losing Streams, 10 CSR 20-7.015(4)(B). "Monitoring only" is proposed for Ammonia as N and Temperature to assess potential impact on the receiving stream.

This permit will be issued for a period of five years.



Missouri Department of Natural Resources
Water Protection Program
NPDES Permits and Engineering Section

Water Quality Review Sheet
Determination of Effluent Limits

Facility Information

FACILITY NAME: Laclede County PWS #3 NPDES #: MO-xxxxxxx

FACILITY TYPE/DESCRIPTION: Municipal wastewater, recirculating sand filter

ECOREGION: Ozark Highlands 8-DIGIT 10290201 COUNTY: Laclede

HUC: Central Irregular Plains Osage Plains
Mississippi Alluvial Plains Ozark Highlands

LEGAL DESCRIPTION: Sec.18, T34N, R15W LATITUDE / 37 39 38.5 / -092 37 19.5
LONGITUDE: (Center of section)

WATER QUALITY HISTORY: New facility

Outfall Characteristics

OUTFALL	DESIGN FLOW (CFS)	TREATMENT TYPE	RECEIVING WATERBODY	OTHER
01	0.84	Recirculating sand filter	Trib. to N. Cobb Creek	

Receiving Waterbody Information

WATERBODY	CLASS	7Q10(CFS)	*DESIGNATED USES	OTHER CHARACTERISTICS
Trib. to N. Cobb Creek	U	0.0	none	Losing stream, 8.03 miles above classified section
North Cobb Creek	P	0.1	AQL, LWV	Losing stream

*Cool Water Fishery (CLF), Cold Water Fishery (CDF), Irrigation (IRR), Industrial (IND), Boating & Canoeing (BTG), Drinking Water Supply (DWS), Whole Body Contact Recreation (WBC), Protection of Warmwater Aquatic Life and Human Health (AQL), Livestock & Wildlife Watering (LWW)

COMMENTS: Proposed discharge is >1 mile from classified section so dechlorination is not required.

MIXING CONSIDERATIONS

Mixing Zone. The receiving stream is unclassified so no Mixing Zone is allowed.

Zone of Initial Dilution (Z.I.D.). The receiving stream is unclassified so no Zone of Initial Dilution is allowed.

Permit Limits And Information

TMDL WATERSHED: ☐ N W.L.A. STUDY CONDUCTED: ☐ N DISINFECTION REQUIRED: ☐ Y DISINFECTION WAIVER: ☐ N
(Y OR N) (Y OR N) (Y OR N) (Y, N, NA)

WET TEST (Y OR N): ☒ FREQUENCY: ONCE/YEAR A.E.C. 100% LIMIT: NO SIGNIFICANT MORTALITY

PARAMETER	MAXIMUM DAILY LIMIT	AVERAGE WEEKLY LIMIT	AVERAGE MONTHLY LIMIT	MONITORING FREQUENCY	SAMPLE TYPE
FLOW MGD	*		*	Daily	24 HOUR TOTAL
TEMPERATURE °F	*		*	ONCE/MONTH	GRAB
pH UNITS	**		**	ONCE/MONTH	GRAB
BIOCHEMICAL OXYGEN DEMAND ₅		15 mg/L	10 mg/L	ONCE/MONTH	GRAB
TOTAL SUSPENDED SOLIDS		20 mg/L	15 mg/L	ONCE/MONTH	GRAB
FECAL COLIFORM COLONIES/100ML	1000		400	ONCE/MONTH	GRAB
AMMONIA AS N (APRIL 1- OCTOBER 31)	2.56 mg/L		1.27 mg/L	ONCE/MONTH	GRAB
AMMONIA AS N (NOVEMBER 1 - MARCH 31)	3.26 mg/L		1.63 mg/L	ONCE/MONTH	GRAB
TOTAL KJELDAHL NITROGEN	*		*	ONCE/MONTH	GRAB
NO ₂ + NO ₃ AS N	*		*	ONCE/MONTH	GRAB
TOTAL PHOSPHOROUS	*		*	ONCE/MONTH	GRAB

*- Monitoring requirement only

**_ pH shall be within the range of 6.0-9.0 standard pH units and is not to be averaged.

Receiving Water Monitoring Requirements

No instream monitoring recommended at this time

Please report the date, time, and location for each parameter sampled along with the average daily flow (actual flow measured or estimated, not design flow). All the parameters should be sampled on the same day and within no more than a 2-hour period. If dissolved oxygen (DO) is to be sampled, sampling should take place at dawn. If discharge is contingent to storm events, rainfall should be measured every time there is a discharge.

Derivation and Discussion of Limits

Biochemical Oxygen Demand₅. Criterion of 15 mg/L average weekly limit and 10 mg/L average monthly limit from 10 CSR 20-7.015 (4)(B)1.

Total Suspended Solids. Criterion of 20 mg/L average weekly limit and 15 mg/L average monthly limit from 10 CSR 20-7.015 (4)(B)2.

pH. pH shall be maintained in the range of 6.0-9.0 standard pH units as per 10 CSR 20-7.015 (4)(B)3.

Fecal Coliform. Criterion of 1000 colonies per 100mL maximum daily limit and 400 colonies per 100mL average monthly limit from 10 CSR 20-7.015 (4)(B)4.

Ammonia as N. Criterion from 10 CSR 20-7.031 (Table B, chronic GWWF); Maximum Daily (MDL) and Average Monthly (AML) limits were calculated in accordance with guidelines outlined in EPA/505/2-90-001.

Ammonia as N = Total Ammonia / 1.2.

Ammonia degradation of 0.07 mg/L/mile- summer and 0.03 mg/L/mile- winter.

Chronic Criteria Total Ammonia (26°C, pH = 7.8): 1.2 mg/l

Summer Ammonia as N Criteria: $[(1.2 \text{ mg/l}) / 1.2] + (8.03 \text{ miles} * 0.07 \text{ mg/L/mile}) = 1.56 \text{ mg/l}$

Chronic Criteria Total Ammonia (6°C, pH = 7.8): 2.1 mg/l

Winter Ammonia as N Criteria: $[(2.1 \text{ mg/l}) / 1.2] + (8.03 \text{ miles} * 0.03 \text{ mg/L/mile}) = 1.99 \text{ mg/l}$

Season	C.C.C	L.T.A	M.D.L.	A.M.L.
Summer (April 1 - October 31)	1.56	0.82	2.56	1.27
Winter (November 1 - March 31)	1.99	1.05	3.26	1.63

C.V. = 0.6, n = 4

DRAFT

Reviewer: Joe Dom
Date: January 28, 2003
Unit Chief: Mohsen Dkhili

Monitoring and effluent limits contained within this document have been developed in accordance with EPA guidelines using the best available data and are believed to be consistent with Missouri's Water Quality Standards and Effluent Regulations. If additional water quality data or anecdotal information are available that may affect the recommended monitoring and effluent limits, please forward these data and information to the author.